

Small Business Innovation Research | Small Business Technology Transfer

Damian Taylor | NASA STTR Overview | August 15, 2019

## **SBIR / STTR Programs Vision and Mission**

### **VISION**

Empower small businesses to deliver technological innovation that contributes to NASA's missions, provides societal benefit, and grows the US economy.

### **MISSION**

Create opportunities through SBIR/STTR awards to leverage small business knowledge and technology development for maximum impact and contribution

NASA's SBIR and STTR programs have awarded more than \$3.75 billion to research-intensive American small businesses.

Engineers and scientists from more than 3,100 Firms in all 50 States, DC, and Puerto Rico have participated across the two programs.

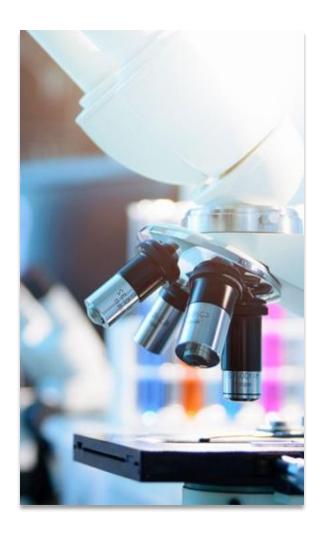
Approximately 15,000 total awards have been made to-date.

## **SBIR/STTR Program Structure**

### **NASA SBIR/STTR PROCESS**

**PHASE II PHASE III** PHASE I **IDEA GENERATION PROTOTYPE** INFUSION/ **DEVELOPMENT COMMERCIALIZATION** \$125,000 \$750,000 **NON-SBIR SBIR 6 MONTHS 24 MONTHS FUNDING STTR 13 MONTHS I-CORPS** PHASE II-E **UP TO \$375,000 FUNDING** 6-TO-12 MONTH EXTENSION UNDER A MATCHING FUND ARRANGEMENT

## The STTR Program



### **Small Business Technology Transfer (STTR)**

- Modeled after the SBIR program, STTR was established as a pilot program by the Small Business Technology Transfer Act of 1992 (Public Law 102-564, Title II).
- STTR facilitates a cooperative agreement for federally funded R&D between small business concerns and U.S. research institutions – with potential for commercialization
- Currently, 0.45% of the extramural research budget for all agencies with a budget greater than \$1B per year (5 federal agencies presently participate)
- STTR also adheres to SBA directives to increase participation by Women-Owned, Veteran-Owned and Small Disadvantaged Businesses and outreach to HBCUs and Minority Serving Institutions. Outreach is also made to under represented areas/regions of the country.

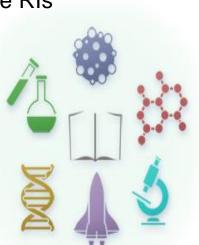
# Why Should You Participate in STTR?

#### For the Small Business Concerns

- Opportunity to leverage expertise and innovative ideas from Professors/Research Staff/Students
- Opportunity to leverage specialized facilities and experimental equipment at the Research Institutions (RIs) when often SBCs may not be able to afford such facilities on their own
- Opportunity to Create Pipeline of Usable Talent for Company from the RIs
- Develop working relationship & credibility with government R&D
- Fosters partnerships with large corporations and academia
- Provides recognition and visibility for your business
- Participation attracts venture capital and other funding sources

#### For the Research Institutions

- Opportunity to Create/Inspire Entrepreneurship as a vital part of the Educational Experience
- Another opportunity to access federal funding for research
- An opportunity sometimes to get RI Intellectual Property (IP) involved in the project and licensed
- Another means for visibility in the research community, generate peerreviewed pubs., etc.



# **Agency SBIR / STTR Differences**

#### **CONTRACTING AGENCIES**

- Agency establishes plans, protocols, requirements
- Highly focused topics
- Procurement mechanism for DOD and NASA
- More fiscal requirements

#### **GRANTING AGENCIES**

- Investigator initiates Approach
- Less-specified topics
- Assistance mechanism
- More flexibility



NASA, DoD, HHS/NIH, ED, EPA, DOT, DOC



HHS/NIH, NSF, ED, USDA, DOE

# **Intellectual Property**

### **Patent Rights**

 Small business concerns normally retain the principal worldwide patent rights to any invention developed with Government support

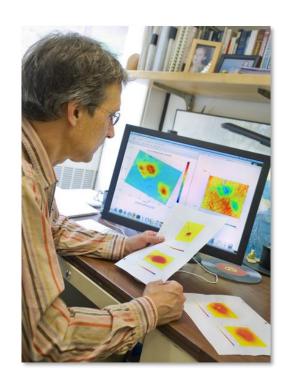
### **Government Use**

 The Federal Government receives a royalty-free license for Federal Government use



U.S. Patent and Trade Office <a href="http://www.uspto.gov/">http://www.uspto.gov/</a>

## **Data Protection**



### **Protection Period**

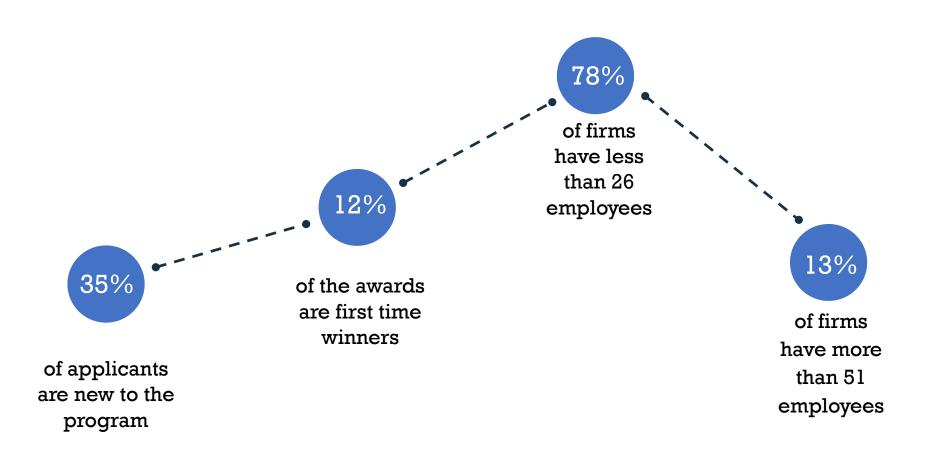
 Data generated from your R/R&D is protected from public disclosure for a minimum of 4 years (civilian agencies) or 5 years (DOD) after the conclusion of your award (Phase I, Phase II, or federally funded Phase III)

### **Government Use**

 The Government retains a royalty-free license for Government use of any technical data delivered under an SBIR award, whether patented or not

# **Working with Small Businesses**

### FY19 Phase I SBIR/STTR Awards Data Points



## **National Science Foundation (NSF) Space Topic**

# **NSF Space Topic**

- NSF is including a Space topic in its SBIR/STTR Program
- Given different program goals and criteria, it's likely that one agency would be a much better fit for any specific project.
- Learn more about the differences between the NSF SBIR/STTR and NASA SBIR/STTR Programs at:

https://sbir.gsfc.nasa.gov/content/nsf-sbirsttr-space-topic-what-you-need-know





# Learning about NASA's Needs

## **Focus Areas**

NASA's research subtopics are organized by "Focus Areas" that group interests and related technologies.

- Identify the Area(s) closest to your innovation/idea
- **Go** to our website to research
- Prepare to write a proposal tailored to NASA's needs

https://sbir.nasa.gov/solicitations

2019 Focus Areas (FA)	
FA 1: In-Space Propulsion Technologies	FA 13: Information Technologies for Science Data
FA 2: Power Energy and Storage	FA 14: In-Space and Advanced Manufacturing
<b>FA 3:</b> Autonomous Systems for Space Exploration	FA 15: Materials, Materials Research, Structures, and Assembly
<b>FA 4:</b> Robotic Systems for Space Exploration	FA 16: Ground and Launch Processing
<b>FA 5:</b> Communications and Navigation	FA 17: Thermal Management Systems
FA 6: Life Support and Habitation Systems	FA 18: Air Vehicle Technology
FA 7: Human Research and Health Maintenance	FA 19: Integrated Flight Systems
FA 8: In-Situ Resource Utilization	<b>FA 20:</b> Airspace Operations and Safety
FA 9: Sensors, Detectors and Instruments	FA 21: Small Spacecraft Technologies
FA 10: Advanced Telescope Technologies	FA 22: Low Earth Orbit Platform Utilization and Microgravity Research
FA 11: Spacecraft and Platform Subsystems	FA 23: Digital Transformation for Aerospace
FA 12: Entry, Descent and Landing Systems	

## NASA SBIR/STTR Website https://sbir.nasa.gov

The NASA SBIR/STTR website is located at

https://sbir.nasa.gov

Research NASA's Needs
Annual Solicitations
including past years



NASA Spinoff is an annual publication that highlights commercial products and services derived from NASA technology. Since 1976, Spinoff has featured more than 2,000 such technologies.

Check out the latest issue of Spinoff to see 15 of our very own SBIR/STTR technologies now commercially available!

READ SPINOFF

#### Looking to Join the Program?

- Program Basics
- Forms Library
- Model Contract
- In-depth Training Resources and FAQs



Proposers



**Awardees** 



**Publications** 

## **Checklist before Submitting Application**

- Submit proposal prior to the deadline
- Perform the "Endorse Proposal" step, which is the final step in the submissions process
- Make sure you meet the format requirements (margin and font size, page limitation)
- Have the RI register correctly (STTR Requirement)
  - For STTR proposals the RI needs to endorse the Research Agreement prior to your proposal being complete and submitted
    - RI will need to create an account in the Proposal Submission EHB
    - register under your firm using your EIN, State, and PIN so they are attached to your proposal correctly
    - choose the RI option at the bottom of the page when entering their name, email, phone, etc.

# **Innovation and Opportunity Conference**



https://innovation-opportunity-conference.com/

## Contact us and let's innovate together

Website

https://sbir.nasa.gov

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NASA Help Desk 301.937.0888